



A nuked apple a day keeps  
the consumer away!

## FOOD IRRADIATION ALERT

#7 - 3856 Sunset Street, Burnaby, B.C., V5G 1T3, Canada

Phone: (604) 432-1787 • Fax: (604) 432-1862



STOP IT NOW  
OR EAT IT LATER!

May 18, 1999

Dockets Management Branch (HFA-305)  
Food and Drug Administration  
5630 Fishers Lane, Room 1061  
Rockville, MD 20852

Re: Docket No. 98N-1038 Irradiated Foods

To Whom It May Concern:

Thank you for your invitation to provide input into Food Irradiation.  
Enclosed are letters from;

Food Irradiation Alert,  
New Westminster Council of Women, and  
Citizens for Scientific Integrity,

Together with:

Several reasons in point form to  
(1) Stop Food Irradiation, or  
(2) Have labeling clearly identifying  
irradiated foods for all time. We call for  
the nuclear plate and cutlery in the above right  
corner to replace the Radura symbol.

Please forward three or more copies of your final paper when it is  
completed to the above address.

We trust the health of all affected nations will be your primary concern.

Sincerely,

*Lila Parker*

Lila Parker, Chair

98N 1038

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May 11, 1999

Dockets Management Branch (HFA-305)  
Food and Drug Administration  
5630 Fishers Lane, Room 1061  
Rockville, MD 20852

Re: Docket No. 98N-1038 Irradiated Foods

To Whom It May Concern:

### **WE URGENTLY REQUEST PROTECTION FOR THE PEOPLE OF THE WORLD FROM THE DANGERS OF FOOD IRRADIATION**

All the answers to today's food problems are solvable by safer means. There is no need for radiation-exposed food! There are many safe, (meaning "causing no harm") cheaper and more viable alternatives, i.e.

- E-coli 0157 was wiped out at a cost of about \$1 per animal using Competitive Bacterial Exclusion. This can be used in poultry as well. *Michael Doyle, University of Georgia,*
- Steam Pasteurization treatment kills bacteria *Cargill Inc., - Minneapolis,*
- High Temperature Forced Air sterilization is easier to incorporate than irradiation. It is cheaper and does not create consumer uneasiness, *Dole Foods - Hawaii,*
- Other effective treatments are Ozone *by the nation's electric utilities,* as well as heat, cold, and infrared!

**To Stop Deadly Food Illnesses we must feed our poultry and feed animals unadulterated diets, Clean Up the Meat Production Process and Slaughtering Practices. It is that simple. There is no need for radiation-exposed food!** We can expect nothing but problems when we grind up dead cows and feed them back to live ones. This resulted in Mad Cow Disease with a single case having the potential to affect thousands. Also, the creation of e-coli has given the irradiation industry hope from its bleak financial outlook. However, it can only create additional problems for the meat industries.

The U.S. FDA Federal Register on Food Irradiation in 1988 stated "safety is not a part of this rule-making." This is the time in which safety must be our first consideration.

Consumers do not want radiation exposed foods, scientists are doubtful. Therefore, we appeal to governments to STOP this activity. Food irradiation was banned in West Germany, Switzerland, Austria, Israel, New Zealand, Sweden, and Australia. U.S.A. state bans are in effect in New York, New Jersey, and Maine, with possible legislation pending in eleven states, and Washington D.C. The International Organization of Consumers Unions have called for a world-wide moratorium. The City of North Vancouver, and the District of Surrey, British Columbia, Canada have taken action to protect their citizens from the dangers of irradiated food.

Our group has studied the scientific data conducted on Irradiated Foods by many world renowned scientists. These animal studies prove severe damage to all vital organs, deaths, miscarriages, smaller litters, and fewer offspring. *Then, there are studies which showed these exact problems, but were concluded safe by industry related people stating the problem was "nutritional in nature" when these nutrients were destroyed by irradiation!*

There is an increase in aflatoxins production after irradiation. Aflatoxins are among the most potent known carcinogens. *Enhanced Aflatoxin Production A.F. Schindler, A.N. Abadie and R.E. Simpson.* Aflatoxins are 1,000 times more carcinogenic than the EDB it plans to replace. *U.S. Environmental Protection Agency*

Chief of FDA Review of Irradiated Food, *Marcia van Gemert, Ph.D.* was the toxicologist who chaired the FDA's review of the 441 studies which supposedly supported safety, as well as the studies conducted for Atomic Energy Canada Ltd. She stated in her letter of October 19, 1993 to Assemblyman John Kelley of New Jersey that, **"the studies did not prove safety of irradiated foods."**

**"The irradiation process forms radiomimetic chemicals which ape the character of radioactivity, thus damaging the growth and division of cells."** *The Scientific System and Irradiation – FDA Testimony, February, 1984 by John Gofman, M.D., Ph.D*

We have all the data required to STOP this hazardous, costly activity! **If we MUST Err, let it be on the side of safety.** This is a time of enormous escalating of birth defects in today's children. Please do not expose them to nuke food under any nomenclature, be it irradiated, cold pasteurized, electronically pasteurized, or any other misleading term.

One argument used by the promoters is that "Food is not made radioactive and no unique toxic products have been found... The U.S. Food and Drugs Administration, Federal Register on Food Irradiation, Bureau of Foods Irradiated Food Committee (BFIFC) concluded that irradiation generated approximately 30 parts per million (ppm) of radiolytic products and about ten percent of these are "unique radiolytic products (URP's)," found in no other treatment. "But, by irradiating food you are inducing carcinogenicity and mutagenicity just as surely as if you were making food radioactive. "Radiation is a carcinogen, mutagen, and teratogen." *Dr. Geraldine Dettman, Radiation Safety and Biosafety Officer – Brown University.*

Experimental rats fed irradiated food showed impairment or loss of fertility, abnormal eyes, massive hemorrhages, and severe heart attacks. Offspring were born blind, and the list continues.... With such evidence of harm, the U.S. FDA, nevertheless, concluded that tests of foods irradiated not exceeding 1 kGy are not needed to support safety. The International Standard dose is 10 kGy, and again, without toxicological safety testing. Therefore, the URP

concentration of 30 ppm could be the residues left in foods in countries accepting the International Standard dose, **when only one ppm is enough to cause cancer.**

The study of Indian Children fed irradiated wheat, by the National Institute of Nutrition in Hyderabad, India, divided three groups of five children each, and fed them diets of unirradiated, freshly irradiated, or stored irradiated wheat at .75 kGy. The children receiving freshly irradiated wheat developed polyploid cells and certain abnormal cells in increasing numbers as the duration of feeding increased and showed a gradual reversal after withdrawal of irradiated wheat. The children fed stored irradiated wheat showed polyploid and abnormal cells in lesser numbers. None of the children fed unirradiated wheat developed any abnormal cells. Eighty percent of these children fed irradiated wheat developed polyploidy within a few weeks. *Effects of Feeding Irradiated Wheat to Malnourished Children - C Bhaskaram, M.D. and G. Sadasivan* **This study has never been refuted in a credible medical journal.** (Compare this to lung cancer in North America, where the rate is eight percent and is developed over many years.) **These tests were repeated in mice, rats, monkeys and guinea pigs with the same results, in various countries of the world.**

Thousands of studies were done, but out of 441 studies only five were considered to be properly conducted by the (BFIFC). And these five studies, carefully analyzed, do not warrant a conclusion of safety. In fact, they showed that complete litters of animals died, there were fewer weaned young, and a clear increase in mortality. Two of the studies used a dose too small. The dose should be 1,000 times that anticipated for human consumption. This is the absolute unchangeable rule of carcinogenic control.

Irradiation destroys many nutrients - enzymes, vitamins, amino acids and fatty acids, leaving us with nutritionally inferior foods. Vast numbers of our population, especially children now consuming processed foods, and the elderly are already undernourished.

Life is too precious to tolerate the nuclear industry's attempt to reduce its stockpiles of radioactive waste by dispersing it in food irradiators. This is a nuclear issue, even if electron beam accelerators are used as they can be converted to Cobalt or Cesium facilities. **Science without health responsibility can no longer be tolerated by an intelligent society.**

**We number seventy-five percent of Canadian consumers, and will not purchase irradiated foods from any country, in any form, at any time, now, or in the future.**

Sincerely yours,



Lila Parker, Chair  
For safe foods

# Food Irradiation

## Information Sheet

- Food Irradiation involves sending food on a conveyor belt into a concrete chamber where it is exposed to radiation from Cobalt-60, Cesium-137 or electron beam sources. The dose can exceed 50,000,000 chest x-rays.
- The food does not become radioactive, unless there is equipment or human error, but electrons are knocked out of orbit and massive molecular rearrangement takes place. "To achieve perfect health through optimal nutrition the body requires electrons derived from natural fatty acids for real nutrients." *Dr. Johanna Budwig*. It will not feed the starving of the world as hunger is an economic and political issue, not a technological one. *Kathleen Tucker & Robert Alvarez testimony before the House Agriculture Subcommittee, p 15-17*
- Food irradiation is completely unlike microwave, which does not possess sufficient energy to split apart molecules. *Health & welfare's paper, "non-ionizing radiation"*
- Vitamins A, C, K, B1, B6, and folic acid are depleted or destroyed. The amino acids tryptophan, cysteine, phenylalanine and methionine are broken down. Fats turn rancid. Carbohydrates create very toxic chemicals. Nucleic acids and enzymes are adversely affected. Damaging free radicals are formed. *Edward S Josephson & Martin S Peterson (Eds) Preservation of Food by Ionizing Radiation (3 Vols) - CRC Press Florida, USA, Vol 1 1982, Vol 2 & 3, 1983. P S Elias & A J Cohen - Recent Advances in Food Irradiation. Elsevier Biochemical Press 1983. P S Elias & A H Cohen - Radiation Chemistry of Major Food Components.*
- New chemicals called UNIQUE RADIOLYTIC PRODUCTS (URPS), which have never been tested, are formed in the foods. Most are unknown. *FDA Bureau of Foods, Irradiated foods Committee (BFIFC) Report, p 74 Recommendations for Evaluating the Safety of Irradiated Food, Final Report, July 1980 - Nuclear Technology, Society and Health Report of the Third Meeting, p 3. E S Josephson, Facts About Food Irradiation - The Journal of the National Academy of Research Biochemists - Gov't Canada Memorandum Jan 10, 1985. A graph shows benzene and toluene production increasing by dose rate. C Merritt Jr.*
- "Our ignorance about these foreign compounds makes it simply a fraud to say we know irradiated foods are safe. Those who claim safety also do not know the long-term hazards". *John Gofman*
- Aflatoxins created by the irradiation process are 1000 times more carcinogenic than the ethylene dibromide (EDB) which it is ostensibly replacing. *U.S. Environmental Protection Branch*
- Botulism is not killed by irradiation, but its natural enemies are. Food may be contaminated without any warning smell. *Louis D S Smith, PhD, Botulism - The Organism, Its Toxins, The Disease*
- Studies from around the world have shown adverse effects when animals have been fed irradiated food. Some of these are: tumors, cataracts, kidney damage, chromosome breakage, fewer offspring and higher mortality. *AMPO Vol 15, No 2, 1983 - Irradiation of the Food We Eat - A New Danger, A E Ivanov & A I Levina, Pathomorphological Changes in the Testes of Rats Fed on Products Irradiated with Gamma Rays, Dr Walter Herbst 1968 Manheim. Incalculable Health Risks, - Jozsef Barna, Compilation of Bioassay Data on the Wholesomeness of Irradiated Food Items.*

- Irradiation is a carcinogen, mutagen and teratogen. The cells of fruits and vegetables will be killed, most insect larvae destroyed, but fungi, bacteria, and viruses will not all be killed or inactivated. They could lead to more virulent contaminants. *Dr. Geraldine Dettman, Radiation Safety & Biosafety Officer - Brown University*
- Irradiation will not reduce the use of chemicals in food. It is applied after harvest, so all the chemicals used in growing the food will continue to be used. No one knows what will happen when the residues are irradiated. In addition, other chemicals will be added to counteract the undesirable changes in texture, odor and flavour created by the irradiation process. *E S Josephson, M S Peterson, Preservation of Food by Ionizing Radiation - The Journal of the National Academy of Research Biochemists - Rosalie Bertell, PhD, GNSH*
- 80% of Indian Children that were fed irradiated wheat developed polyploid cells (the cells no longer divide) within a few weeks. *Effects of Feeding Irradiated Wheat to Malnourished Children, C Bhaskaram, MD, G Sadasivan, Msc MB BS MSc.*
- There is no way to determine if a food has been irradiated, or at what dosage, or how many times. There are safer, cheaper, viable alternatives for decontamination. Some of these are: CO<sub>2</sub>, fumigation, heat and cold treatments, and infrared.
- Dr Tritsch at the Roswell Park Cancer Institute in New York State points out that irradiation of sugar-containing products produces formaldehyde and irradiation of unsaturated fatty acids produces peroxides which results in the formation of benzopyrene quinone, a cancer causing agent. *Nutrition Reviews, Oct. 1992 as printed in alive #127 p 27*
- Canada had approved irradiation for potatoes, onions, spices, wheat, and flour. Labeling is not required for restaurant and institution foods, or for products containing less than 10% irradiated ingredients. Now irradiated food has been classified as a process, therefore, toxicological safety testing is not required and labeling is not necessary. Canada has exempted irradiation from Access to Information so we cannot find out which foods actually are being irradiated, or how many 10 MeV (Mega electron volt) irradiators are in operation.
- The U.S. FDA has approved irradiation for spices and herbs, fruits and vegetables, grains, pork, and poultry. Petitions for seafood and beef are pending.
- Dr Marcia van Germet, the toxicologist who chaired the FDA's scientific review of 441 studies in 1982 and conducted studies in Canada, testified to the New York State Legislature that the available studies are not adequate to evaluate the safety of irradiated foods. 1995

Updated January, 1999

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A complete Information Package is available on Food Irradiation for \$20 for HANS members, \$30 for non-members